

NOAA ESRL GLOBAL MONITORING DIVISION REVIEW

3-5 April 2013

David Skaggs Research Center, Room GC-402
325 Broadway, Boulder, Colorado 80305

Wednesday, April 3rd, 2013

AGENDA

- **07:00 - 08:00** *Millennium Hotel, informal breakfast buffet, Thyme on the Creek, Reviewers and Steve Fine*

- **08:00** Transportation, front door of hotel, NOAA vans
DSRC check-in, Proceed to Room GC-402

- **Session 1** *Welcome and Overview (08:30-09:30)*

- 08:30 – 08:40 Welcome & Introductions
Dr. Alexander MacDonald, Director, NOAA Earth System Research Laboratory
- 08:40 – 08:45 Logistic Details, Updates
Dr. Russ Schnell, Deputy Director, GMD
- 08:45 – 09:05 Overview of NOAA/OAR Research (OV-1)
Dr. Steve Fine, OAR Deputy Assistant Administrator
- 09:05 – 09:30 GMD Overview (OV-2)
Dr. James Butler, Director GMD

- Session 2** *Theme 1: Climate Forcing (09:30-10:20)*

- 09:30 – 09:50 Overview – Climate Forcing (CF-1)
Dr. John Miller, Carbon Cycle Group
- 09:50 – 10:10 Development of the Global Greenhouse Gas Reference Network (CF-2)
Dr. Pieter Tans, Chief, Carbon Cycle Group

- **10:10 - 10:30** *Morning Break*

- Session 3** *Theme 1: Climate Forcing (10:30-12:00)*

- 10:30 – 10:45 The Carbon Cycle and Anthropogenic Carbon Emissions (CF-3)
Dr. John Miller, Carbon Cycle Group
- 10:45 – 11:00 Vertical Profiles (CF-4)
Dr. Colm Sweeney, Carbon Cycle Group
- 11:00 – 11:15 CarbonTracker (CF-5)
Dr. Andy Jacobson, Carbon Cycle
- 11:15 – 11:30 Methane (CF-6)
Dr. Ed Dlugokencky, Carbon Cycle Group
- 11:30 – 11:45 Detection and Monitoring of Changing Methane Emissions in the Arctic (CF-7)
Dr. Lori Bruhwiler, Carbon Cycle Group
- 11:45 – 12:00 Greenhouse Gas Measurement Program Future Directions (CF-8)
Dr. Arlyn Andrews, Carbon Cycle
- 12:00 – 12:15 Summary – Climate Forcing Gases and the Annual Greenhouse Gas Index (CF-9)
Dr. Steve Montzka, Halocarbon Group

- **Session 4** *Lunch and Poster Viewing (12:15-14:15)*
 - 12:15 – 01:00 Lunch: Room GB124 with review committee, OAR and GMD management
 - 13:00 – 14:15 Poster Session 1: Atrium, Climate Forcing

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- **Session 5** ***Theme 1: Climate Forcing (continued) (14:15-15:15)***

- 14:15 – 14:30 Long-Term Monitoring of Water Vapor in the Upper Troposphere and Lower Stratosphere (CF-10)
 Dr. Dale Hurst, Ozone and Water Vapor
- 14:30 – 14:45 Aerosol Direct Climate Forcing (CF-11)
 Dr. John Ogren, Group Chief, Aerosols
- 14:45 – 15:00 Radiation Contributions to Climate Forcing, Ozone, and Air Quality (CF-12)
 Dr. Joe Michalsky, Group Chief, Radiation
- 15:00 – 15:15 Summary – Climate Forcing (CF-13)
 Dr. James Butler, Director, GMD

- **15:15 - 15:30** ***Afternoon Break***

- **Session 6** ***GMD Tour and Reviewer Work Session***

- 15:30 – 16:30 Tour of Global Monitoring Division Boulder Operations for reviewers
- 16:30 – 17:30 Reviewer closed session in room 3D512.
- 17:30 Adjourn, sign out, and shuttle for hotel

- **18:30 - 20:30** ***Dinner location TBD – invited guests***

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Thursday, April 4th, 2013

AGENDA

- **07:00 - 08:00** *Millennium Hotel, informal breakfast buffet, Thyme on the Creek*
- **08:00** *Transportation, front door of hotel, NOAA vans
DSRC check-in, Proceed to Room GC-402*
- **Session 7** *Stakeholder Telephone Calls, Room 3D512, (08:30 - 09:30)
(Closed session with reviewers and phone assistants)*
 - 1. Climate Forcing, 3 calls (~30 min)
 - Dr. Steven Wofsy, Professor of Atmospheric and Environmental Science, Harvard University; (Also Ozone)
 - Dr. Deon Terblanche, Director, Atmospheric Research and Environment, Global Atmospheric Watch Programme (Also Ozone)
 - Robert S. Marshall, President and CEO, Earth Networks
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 - 2. Ozone, 2 calls (~20 min)
 - Dr. Mack McFarland, Global Environmental Manager, Dupont Chemicals and Fluoroproducts
 - Dr. Ron Prinn, Professor, MIT (Also Climate Forcing)
 - 3. Air Quality, 1 call (~10 min)
 - Brock LeBaron, Deputy Director, Division of Air Quality, State of Utah
- **Session 8** *Observatories & Common Elements (09:30-10:20)*
 - 09:30 – 09:45 Global Monitoring Division Observing Facilities and Operations (OC-1)
Dr. Russ Schnell, Deputy Director, GMD
 - 09:45 – 10:00 Calibration and Standards Activities (OC-2)
Dr. Brad Hall, Halocarbons Group
 - 10:00 – 10:20 Data management and quality control (OC-3)
Ken Masarie, Carbon Cycle Group
- **10:20 - 10:35** *Morning Break*

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• **Session 9** **Theme 2: Ozone and Ozone Depleting Gases (10:30-11:55)**

- 10:35 – 10:50 Overview – Ozone and Ozone Depleting Gases (OD-1)
 Dr. James Elkins, Group Chief, Halocarbons and Trace Species
- 10:50 – 11:05 Measurements and Analysis of Stratospheric Ozone (OD-2)
 Dr. Irina Petropavlovskikh, Group Chief, Ozone and Water Vapor
- 11:05 – 11:20 South Pole Ozone (OD-3)
 Dr. Bryan Johnson, Ozone and Water Vapor
- 11:20 – 11:35 Stratospheric Transport (OD-4)
 Dr. Fred Moore, Halocarbon Group
- 11:35 – 11:55 Ozone Depleting Gas Index and Summary (OD-5)
 Dr. Steve Montzka, Halocarbons and Trace Species

• **Session 10** **Lunch and Poster Viewing (11:55-13:45)**

- 11:55 – 12:45 Lunch: Room GB124 with review committee and GMD Scientists.
- 12:45 – 13:45 Poster Session 2: Atrium, Ozone and Air Quality

• **Session 11** **Theme 3: Air Quality (AQ) and Regional Studies (13:45-15:00)**

- 13:45 – 14:00 Overview of GMD AQ and Regional Studies (AR-1)
 Dr. Russ Schnell, Deputy Director, GMD
- 14:00 – 14:15 Tropospheric Ozone (AR-2)
 Sam Oltmans, Ozone Group
- 14:15 – 14:30 Aerosol Optical Depth Measurements and Related Research (AR-3)
 John Augustine, Radiation Group
- 14:30 – 14:45 Methane and Volatile Organic Compounds Emissions from Oil and Gas Operations (AR-4)
 Dr. Gabrielle Petron, Carbon Cycle Group
- 14:45 – 15:00 Review summary
 Dr. James Butler, Director, GMD (RS-1)

• **15:00 - 15:15 Afternoon Break – End of Public Review Sessions**

• **Session 12** **Reviewers Session (15:15 – 17:45)**

- 15:15 – 16:00 Reviewer closed session with GMD and OAR Management, Room GC402.
- 16:00 – 17:45 Reviewer closed session, Room GB124.
- 17:45 Adjourn and shuttle for hotel

• **18:30 - 20:30 Dinner**

Reviewer's executive dinner

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Friday, April 5th, 2013

AGENDA

- **07:00 - 08:00** *Millennium Hotel, informal breakfas, Thyme on the Creek*
- **08:00** *Transportation, front door of hotel, NOAA vans
DSRC check-in, Proceed to Room GC-402*
- **Session 13** **Reviewer Comments**
 - 08:30 – 11:00 Review team formulates recommendations and begins writing, 3D512.
 - 11:00 – 12:00 Review team provides preliminary feedback to OAR and GMD Management, GC402.
- **12:00** **Adjourn**

Revised: Thursday, March 21, 2013